

CLAIMS

What is claimed is:

1. A method of constructing a metallization structure on a preexisting dielectric layer of an integrated circuit during fabrication of the integrated circuit, the method comprising the steps of:
 - 4 depositing a layer of titanium onto the preexisting dielectric layer of the integrated circuit;
 - 6 depositing a layer of aluminum onto the layer of titanium;
 - heating the integrated circuit sufficiently to cause the layer of titanium to become at least partially alloyed with the layer of aluminum; and
 - 10 further heating the integrated circuit at 400 degrees C for about 45 minutes so that impurities from the dielectric layer have passivated structural defects within a silicon layer of the integrated circuit.
2. The method of claim 1, wherein the thickness of the layer of titanium as deposited is limited so that the layer of titanium will completely alloy with the layer of aluminum as a result of the heating of the integrated circuit.
3. The method of claim 1, wherein the thickness of the layer of titanium as deposited is less than or equal to 200 angstroms thick.
4. The method of claim 1, further comprising the step of depositing a 2 layer of titanium-nitride onto the layer of aluminum.